



Scoping of climate change impacts on population health and vulnerabilities

Rob Turk, Arup

Climate change adaptation information sharing forum

22 September 2009

Overview

- Context
- Project Overview
- Benchmarking Report
- Assessment Methodology
- Summary



Climate change is the biggest global health threat of the 21st century

The Lancet, May 2009

Context

- The impacts of climate change are considered the largest threat to global health of this century
- Many unforeseen vulnerabilities
- Strongly differential effects on people within and between countries and regions, on this generation and future generations, and on human societies and the natural world.
- The significance of climate change to health is recognised by the Victorian Government.

Context

Our Environment, Our Future - Sustainability Action Statement

- increase its scientific knowledge and technical expertise to help communities adapt to climate change and *inter alia* understand what climate change will mean for the health of Victorians, especially the elderly, young and chronically unwell.
- assess the potential public health impacts on Victorians arising from climate change, such as heat waves

Climate Change Green Paper

- climate change is likely to have a number of adverse impacts on the health and wellbeing of Victorians and that determining the precise health impacts will require further investigation



Project Overview

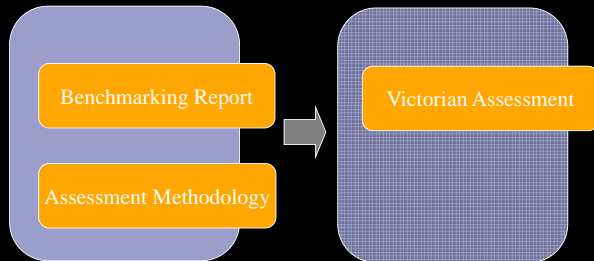
Victorian Department of Health commissioned a two phase project

- **Phase 1** will develop an appropriate methodology for assessing the impacts of climate change on human health and identifying key vulnerabilities and adaptive capacities and the development of recommendations for future actions to ameliorate adverse health effects on the Victorian population.
- The outcome of Phase 1 will be a report providing the Department with a robust methodology with which to undertake Phase Two of the project, the impact assessment.
- **Phase 2** involves applying the methodology to undertake the assessment

Project Overview

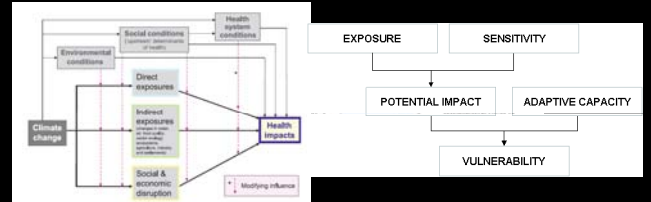
Scoping of Climate Change Impacts on Population Health & Vulnerabilities

Assessment of Climate Change Impacts on Population Health & Vulnerabilities



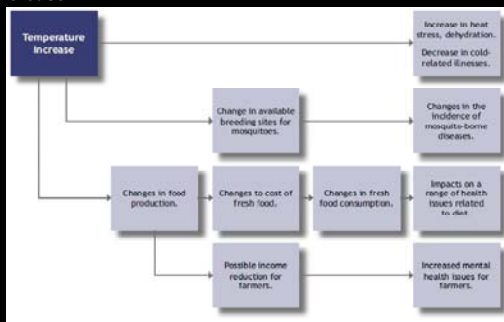
Benchmarking Report

Two key relationships underpin methodology



Benchmarking Report

Example of potential direct and indirect impacts of temperature increase



Benchmarking Report

Health Impacts	Vulnerable Groups
Heatwaves	Children and infants
Extreme weather events	Indigenous communities
Drought	Coastal communities
Fires	People with pre-existing medical conditions
Air quality	Low SES groups
Food safety and quality	Rural communities
Vector-borne infectious disease, zoonoses and environmental pathogens	Elderly
Health care system, infrastructure and services	Farming communities
Impacts on the social environment	Those living in built up urban areas
Impacts on the built environment	
Impacts on the economic environment	

Assessment Methodology

Two key assessments of the impacts of climate change on population health and vulnerabilities have been undertaken to date

- Health Canada: *Human Health in a Changing Climate: A Canadian Assessment of Vulnerability and Adaptive Capacity*
- WA Department of Health: *Health Impacts of Climate Change: Adaptation strategies for Western Australia*



Assessment Methodology

Methodology based on six steps building on climate change, health and vulnerabilities relationships



All of Victorian Assessment, with option for specific focus on geographic areas, health impact types or vulnerable populations

Summary

- Growing recognition of the potential threat posed by climate change by both health professionals and Government.
- Benchmarking report has documented existing knowledge surrounding relationship between climate change, health and vulnerable populations.
- All of Victorian assessment to be undertaken in a staged process.
- Purpose is to inform Government response for the coming 5, 10 and 15 years.
- Methodology currently being finalised.